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To the International Preliminary Examining Authority EUROPEAN PATENT OFFICE D-80298 MUNICH

BY FAX (7 PAGES)

Turin, FEBRUARY 02, 2006

Our ref.: E-3073/05

For the attention of the Primary Examiner PESCHEL W.

Dear Sirs,

RE: International Application No. PCT/IB2005/000447 in the name of TEK S.R.L.

With reference to the above application and in reply to the Written Opinion dated September, 05 2005, and to the invitation of January, 16 2006, an amendment according to Art. 34(2) (b) and Rule 66.1 (b) PCT is submitted by the applicant; please find enclosed herewith an amended claim 1 to replace the original one. Furthermore, in the demand it was indicated that examination should start on the basis of the claims. Contrary to this indication, please find enclosed revised pages of the description (3, 3a, 4) to acknowledge the closest prior art in the introductory part of the description.

The Examiner's remarks have been taken in due consideration and an amended claim 1 is hereby submitted which better distinguishes the invention over the cited prior art. Dependent claims 2 to 12 are unchanged.

Amendments are fully supported by the description on page 10, lines 13-14 and on page 5 lines 18-19.

US2003/056851 (D1) is acknowledged as the closest prior art and discloses a container 3 closed by a sealing membrane and screwed on a pneumatic cylinder 41 having a plunger 46 movable in response to the pressurization of a channel 29. Plunger 46 has a perforator end 52 to tear sealing membrane 38 and open container 3 when channel 29 is pressurized.

D1 teaches to use a container sealed by a membrane and screwed to a separate element defining a pneumatic perforator. D1 does not disclose or hint an integrated unit comprising a container being closed by a valve housed in the neck of the container itself.

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Therefore amended Claim 1 is novel with respect to D1.

Amended Claim 1 is also novel with respect to DE20113129 (D2) whereby it is disclosed a container closed by membranes 40 and 42 which blow (platzen) when pressurized.

Amended claim 1 differs from D1 in that it is closed by valve 18 and in that valve 18 is housed in the neck of the vessel thereby defining an integrated unit. The problem posed with regard to D1 is how to ensure that the container 3 can be replaced in the easiest possible way and at the same time that a reliable sealing is offered against overpressures which may be caused by overexposure to high temperature.

The sealing membrane closure for the container is the core of the system used in D1 and D2 and there is no teaching to depart from its use. Therefore a skilled person faced to the problem of improving reliability and functionality of container would seek to improve that system, e.g. by making stronger both the gluing agent and the membrane, and to integrate on the container a pneumatic cylinder with a sharper perforator.

Therefore, we submit that amended claim 1 involves an inventive step too.

On the grounds of the above amendments, we believe that the international application should now be in compliance with the PCT provisions and hope that a positive international preliminary examination report may be established.

Yours faithfully,

Encl.

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* See amended page 3/479 Rec'd PCT/PTU 25 AUG 2006

dispenser unit comprising an inlet conduit and an outlet conduit connected respectively, by respective conduits, to the compressor and the valve of the tyre for repair.

In one known solution, the container is fitted permanently to the dispenser unit, which incorporates a sealing device. The container, in itself open, is therefore undetachable from the dispenser unit.

A major drawback of this solution is that, after use or when the use-by date of the sealing liquid expires, both the container and the dispenser unit must be replaced, thus increasing cost.

In another known solution, the container itself is sealed, e.g. by a sealing membrane, which is split when the container is fitted to the dispenser unit. This means the container must be fitted to the dispenser unit just prior to use, which constitutes an undesible additional operation.

DISCLOSURE OF INVENTION

It is an object of the present invention to provide a container for sealing liquid for repairing inflatable articles, designed to eliminate the aforementioned drawbacks typically associated with known containers.

According to the present invention, there is provided a container for sealing liquid for repairing inflatable articles, in particular, tyres, and comprising a vessel having an opening, and on-off means fitted to said opening; characterized in that said on-off means comprise a valve device having an inlet connectable to a

US-A1-2003/056851 discloses a container closed by a sealing membrane and connected to a screwed portion of a repair unit. The screwed portion houses a pneumatic cylinder having a plunger movable in response to the pressurization of a channel and a perforator end to tear the sealing membrane and open the container when the channel is pressurized. However, this known container does not provide for a reliable sealing against overpressures which may be caused by overexposure to high temperature because the membrane may easily break.

DISCLOSURE OF INVENTION

It is an object of the present invention to provide a container for sealing liquid for repairing inflatable articles, designed to eliminate the aforementioned drawbacks typically associated with known containers.

According to the present invention, there is provided a container for sealing liquid for repairing inflatable articles, in particular, tyres, according to claim 1.

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compressed-air feed line, and an outlet for dispensing the sealing liquid; said valve device comprising at least one control member movable, in response to pressurization of said feed line, from a closed position closing said valve device and wherein said inlet and said outlet are isolated from the inside of said container, to an open position wherein said inlet and said outlet communicate with the inside of said container.

BRIEF DESCRIPTION OF THE DRAWINGS

A preferred, non-limiting embodiment of the present invention will be described by way of example with reference to the accompanying drawings, in which:

Figure 1 shows a view in perspective of a repair kit comprising a sealing liquid container in accordance with the present invention;

Figure 2 shows a partly disassembled view in perspective of the Figure 1 kit;

Figures 3 and 4 show a rear view and underside view in perspective respectively of the Figure 1 kit partly disassembled;

Figures 5 and 6 show sections, along line V-V in Figure 2, of the container and a dispenser unit of the Figure 2 kit assembled together.

BEST MODE FOR CARRYING OUT THE INVENTION

Number 1 in Figures 1 to 4 indicates as a whole a kit for fast repair of inflatable articles, in particular, tyres.

Kit 1 substantially comprises an electric compressor

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CLAIMS

- 1) A container (3) for sealing liquid for repairing inflatable articles, in particular, tyres, and comprising a vessel (15) having an opening (17) and closing means (18) to close said opening (17), characterized in that (18) comprise a valve device said closing means integrated in said container (3) and housed into said opening (17), said valve device (18) having an inlet (27c) connectable to a compressed-air feed line (4), and an outlet (29a) for dispensing the sealing liquid; said valve device (18) comprising at least one control member (30) movable, in response to pressurization of said feed line (4), from a closed position closing said valve device (18) and wherein said inlet (27c) and said outlet (29a) are closed from the inside of said container (3) by said control member (30), to an open position wherein said inlet (27c) and said outlet (29a) communicate with the inside of said container (3).
- 2) A container as claimed in Claim 1, characterized in that said valve device (18) comprises elastic means (31) for keeping said control member (30) stably in said closed position in the absence of pressure to said inlet (27c).
- 3) A container as claimed in Claim 2, characterized in that said valve device (18) comprises a body (19) housed in fluidtight manner in said opening (17) of said vessel (15) and having at least one first hole (24) and

at least one second hole (25) axially spaced apart and communicating with the inside of said container (3); said